

CLAIMS

We claim:

1. Atorvastatin calcium Form V or hydrate thereof.
2. The atorvastatin calcium Form V or hydrate thereof of claim 1 having an X-ray powder diffractogram substantially as depicted in Figure 1.
3. ~~The atorvastatin calcium Form V or hydrate thereof of claim 1 having X-ray powder diffraction peaks at about 5.5 and 8.3 degrees at 2θ and a broad peak at about 18-23 degrees 2θ.~~
4. The atorvastatin calcium Form V or hydrate thereof of claim 1 having a solid state <sup>13</sup>C NMR spectrum substantially as depicted in Figure 2.
5. ~~The atorvastatin calcium Form V or hydrate thereof of claim 1 having solid state <sup>13</sup>C NMR signals at about 21.9, 25.9, 118.9, 122.5, 128.7, 161.0 and 167.1 ppm.~~
6. Atorvastatin calcium Form V containing up to about 9 moles of water per mole of atorvastatin calcium.
7. ~~A process for preparing atorvastatin calcium Form V, or hydrate thereof, comprising the steps of
  - a) dissolving a metal, ammonium or alkylammonium salt of atorvastatin in a solvent to form an atorvastatin salt solution
  - b) contacting the atorvastatin salt solution with a calcium salt, and
  - c) isolating atorvastatin calcium Form V or hydrates thereof.~~
8. The process of claim 7 wherein the salt of atorvastatin is a metal salt of

atorvastatin.

9. The process of claim 8 wherein the metal salt of atorvastatin is a sodium salt of atorvastatin.
10. The process of claim 7 wherein the calcium salt is calcium acetate.
11. The process of claim 7 wherein the calcium salt is dissolved in a solvent and the atorvastatin salt solution is contacted with the calcium salt by adding the calcium salt solution to the atorvastatin salt solution.
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A4 12. ~~A process for preparing atorvastatin calcium Form V or hydrates thereof comprising the steps of~~
- a) dissolving atorvastatin calcium in a solvent selected from the group consisting of tetrahydrofuran and hydroxylic solvents to form an atorvastatin calcium salt solution,
  - b) adding water to the atorvastatin calcium salt solution, and
  - c) isolating atorvastatin calcium Form V or hydrates thereof.
13. The process of claim 12 wherein the solvent is methanol.
14. The process of claim 12 wherein the solvent is ethanol.
15. The process of claim 12 wherein the solvent is tetrahydrofuran.
16. A pharmaceutical composition comprising a therapeutic amount of atorvastatin Form V or hydrates thereof of claim 1.

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